

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 26 Aug 2003 (20030826/PD)  
 FILE LAST UPDATED: 26 Aug 2003 (20030826/ED)  
 HIGHEST GRANTED PATENT NUMBER: US6611958  
 HIGHEST APPLICATION PUBLICATION NUMBER: US2003159190  
 CA INDEXING IS CURRENT THROUGH 26 Aug 2003 (20030826/UPCA)  
 ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 26 Aug 2003 (20030826/PD)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2003  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2003

>>> USPAT2 is now available. USPATFULL contains full text of the <<<  
 >>> original, i.e., the earliest published granted patents or <<<  
 >>> applications. USPAT2 contains full text of the latest US <<<  
 >>> publications, starting in 2001, for the inventions covered in <<<  
 >>> USPATFULL. A USPATFULL record contains not only the original <<<  
 >>> published document but also a list of any subsequent <<<  
 >>> publications. The publication number, patent kind code, and <<<  
 >>> publication date for all the US publications for an invention <<<  
 >>> are displayed in the PI (Patent Information) field of USPATFULL <<<  
 >>> records and may be searched in standard search fields, e.g., /PN, <<<  
 >>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<  
 >>> through the new cluster USPATAL. Type FILE USPATAL to <<<  
 >>> enter this cluster. <<<  
 >>> <<<  
 >>> Use USPATAL when searching terms such as patent assignees, <<<  
 >>> classifications, or claims, that may potentially change from <<<  
 >>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate  
 substance identification.

=> d que nos 165

L12	STR	
L14	179 SEA FILE=REGISTRY SSS FUL	L12
L15	169 SEA FILE=REGISTRY ABB=ON PLU=ON	L14/COM
L16	109 SEA FILE=REGISTRY ABB=ON PLU=ON	L15 NOT (X OR N)/ELS
L17	141 SEA FILE=REGISTRY ABB=ON PLU=ON	"PERBORIC ACID"
L18	1 SEA FILE=REGISTRY ABB=ON PLU=ON	"PERBORIC ACID"/CN
L60	100 SEA FILE=USPATFULL ABB=ON PLU=ON	L16
L61	16 SEA FILE=USPATFULL ABB=ON PLU=ON	ACYLOXYCARBOXYL?
L63	8979 SEA FILE=USPATFULL ABB=ON PLU=ON	L17 OR PERBOR?
L64	50689 SEA FILE=USPATFULL ABB=ON PLU=ON	L18 OR ?BENZENESULFON?
L65	2 SEA FILE=USPATFULL ABB=ON PLU=ON	(L60 OR L61) AND L63 AND

*cpds from Reg search*  
*2 patents*

=> d que nos 171

L17	141 SEA FILE=REGISTRY ABB=ON PLU=ON	"PERBORIC ACID"
L18	1 SEA FILE=REGISTRY ABB=ON PLU=ON	"PERBORIC ACID"/CN
L62	169671 SEA FILE=USPATFULL ABB=ON PLU=ON	CARBOXYLIC ACID
L63	8979 SEA FILE=USPATFULL ABB=ON PLU=ON	L17 OR PERBOR?
L64	50689 SEA FILE=USPATFULL ABB=ON PLU=ON	L18 OR ?BENZENESULFON?
L66	293 SEA FILE=USPATFULL ABB=ON PLU=ON	L62(P)L63
L67	21 SEA FILE=USPATFULL ABB=ON PLU=ON	L66(P)L64
L68	6 SEA FILE=USPATFULL ABB=ON PLU=ON	L67 AND BUFFER?
L71	3 SEA FILE=USPATFULL ABB=ON PLU=ON	L68 AND POWDER?

*3 patents*

=> d que nos 185

L17	141 SEA FILE=REGISTRY ABB=ON PLU=ON	"PERBORIC ACID"
L18	1 SEA FILE=REGISTRY ABB=ON PLU=ON	"PERBORIC ACID"/CN
L62	169671 SEA FILE=USPATFULL ABB=ON PLU=ON	CARBOXYLIC ACID
L63	8979 SEA FILE=USPATFULL ABB=ON PLU=ON	L17 OR PERBOR?

L64	50689	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L18 OR ?BENZENESULFON?
L75	56882	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	(NA OR SODIUM) (2A) (PHOSPH?
						OR P04)
L78	5118	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L62(3A)ACYL?
L80	107	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L78 AND L63
L81	54	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L80 AND L64
L82	27	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L81 AND L75
L83	26	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L82 AND (POWDER? OR
						GRANUL?)
L84	8	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L83 NOT INHIBITOR/TI
L85	4	SEA	FILE=USPATFULL	ABB=ON	PLU=ON	L84 AND BUFFER? <i>4 patents</i>

=&gt; s 165 or 171 or 185

L86            9 L65 OR L71 OR L85    *9 patents total from uspatfull*

=&gt; file hcaplus

FILE 'HCAPLUS' ENTERED AT 15:32:16 ON 26 AUG 2003  
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FILE COVERS 1907 - 26 Aug 2003 VOL 139 ISS 9  
 FILE LAST UPDATED: 25 Aug 2003 (20030825/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; d que nos 125

L12	STR					
L14	179	SEA	FILE=REGISTRY	SSS FUL	L12	
L15	169	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L14/COM
L16	109	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L15 NOT (X OR N)/ELS
L17	141	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PERBORIC ACID"
L19	12661	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	46.150.18/RID AND NR=1 AND
						"SULFONATE"
L22	457	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L16
L23	3051	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L17
L24	40659	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L19
L25	1	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L22 AND L23 AND L24

*↑*  
*(6)*  
*cpds from STR search*  
*alkyl sulfonate surfactants*  
*1 citation*

=&gt; d que nos 126

L12	STR					
L14	179	SEA	FILE=REGISTRY	SSS FUL	L12	
L15	169	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L14/COM
L16	109	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L15 NOT (X OR N)/ELS
L17	141	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PERBORIC ACID"
L22	457	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L16
L23	3051	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L17
L26	3	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L22 AND L23

*3 cites*

=&gt; d que nos 131

L17	141	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PERBORIC ACID"
L23	3051	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L17
L27	62254	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	CARBOXYLIC ACIDS+PFT/CT
L28	151	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L27 AND L23
L31	5	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L28 AND BUFFER 5 cites

using indexing for carb. acids  
instead of the cpds  
from the STR  
search

=&gt; d que nos 144

L12		STR				
L14	179	SEA	FILE=REGISTRY	SSS	FUL	L12
L15	169	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L14/COM
L16	109	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L15 NOT (X OR N)/ELS
L17	141	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PERBORIC ACID"
L22	457	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L16
L35	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, MONOSODIUM SALT"/CN
L36	8	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, MONOSODIUM SALT" AND "HYDRATE"
L37	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	PHOSPHORIC ACID, DISODIUM SALT/CN
L38	13	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"HYDRATE" AND "PHOSPHORIC ACID, DISODIUM SALT"
L39	29	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, TRISODIUM SALT" AND "HYDRATE"
L40	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, TRISODIUM SALT"/CN
L41	53	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	(L35 OR L36 OR L37 OR L38 OR L39 OR L40)
L42	15491	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L41
L43	1	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L42 AND L22
L44	0	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L43 AND L17

CT = controlled terms  
PFT = old, new or  
used for terms

looking for  
PO<sub>4</sub> buffer

cpds from search  
no cites

=&gt; d que nos 146

L17	141	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PERBORIC ACID"
L19	12661	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	46.150.18/RID AND NR=1 AND "SULFONATE"
L23	3051	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L17
L24	40659	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L19
L27	62254	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	CARBOXYLIC ACIDS+PFT/CT
L28	151	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L27 AND L23
L35	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, MONOSODIUM SALT"/CN
L36	8	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, MONOSODIUM SALT" AND "HYDRATE"
L37	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	PHOSPHORIC ACID, DISODIUM SALT/CN
L38	13	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"HYDRATE" AND "PHOSPHORIC ACID, DISODIUM SALT"
L39	29	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, TRISODIUM SALT" AND "HYDRATE"
L40	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	"PHOSPHORIC ACID, TRISODIUM SALT"/CN
L41	53	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	(L35 OR L36 OR L37 OR L38 OR L39 OR L40)
L42	15491	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L41
L45	8	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L28 AND L42
L46	1	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L45 AND L24 1 cite

=&gt; d que nos 147

L17 141 SEA FILE=REGISTRY ABB=ON PLU=ON "PERBORIC ACID"  
 L23 3051 SEA FILE=HCAPLUS ABB=ON PLU=ON L17  
 L27 62254 SEA FILE=HCAPLUS ABB=ON PLU=ON CARBOXYLIC ACIDS+PFT/CT  
 L28 151 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND L23  
 L35 1 SEA FILE=REGISTRY ABB=ON PLU=ON "PHOSPHORIC ACID, MONOSODIUM  
 SALT"/CN  
 L36 8 SEA FILE=REGISTRY ABB=ON PLU=ON "PHOSPHORIC ACID, MONOSODIUM  
 SALT" AND "HYDRATE"  
 L37 1 SEA FILE=REGISTRY ABB=ON PLU=ON PHOSPHORIC ACID, DISODIUM  
 SALT/CN  
 L38 13 SEA FILE=REGISTRY ABB=ON PLU=ON "HYDRATE" AND "PHOSPHORIC  
 ACID, DISODIUM SALT"  
 L39 29 SEA FILE=REGISTRY ABB=ON PLU=ON "PHOSPHORIC ACID, TRISODIUM  
 SALT" AND "HYDRATE"  
 L40 1 SEA FILE=REGISTRY ABB=ON PLU=ON "PHOSPHORIC ACID, TRISODIUM  
 SALT"/CN  
 L41 53 SEA FILE=REGISTRY ABB=ON PLU=ON (L35 OR L36 OR L37 OR L38 OR  
 L39 OR L40)  
 L42 15491 SEA FILE=HCAPLUS ABB=ON PLU=ON L41  
 L45 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L42  
 L47 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L45 AND SURFACT? 4 cites

=&gt; d que nos 156

L12 STR  
 L14 179 SEA FILE=REGISTRY SSS FUL L12  
 L15 169 SEA FILE=REGISTRY ABB=ON PLU=ON L14/COM  
 L16 109 SEA FILE=REGISTRY ABB=ON PLU=ON L15 NOT (X OR N)/ELS  
 L19 12661 SEA FILE=REGISTRY ABB=ON PLU=ON 46.150.18/RID AND NR=1 AND  
 "SULFONATE"  
 L22 457 SEA FILE=HCAPLUS ABB=ON PLU=ON L16  
 L24 40659 SEA FILE=HCAPLUS ABB=ON PLU=ON L19  
 L48 6593 SEA FILE=HCAPLUS ABB=ON PLU=ON ALKYL BENZENESULFONATE  
 L49 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND L48  
 L50 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 AND PERBOR?  
 L51 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L24 AND L50  
 L52 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND PERBOR?  
 L53 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 AND L52  
 L56 7 SEA FILE=HCAPLUS ABB=ON PLU=ON (L49 OR L50 OR L51 OR L52 OR  
 L53) 7 cites

*← more general term*

=&gt; d que nos 159

L12 STR  
 L14 179 SEA FILE=REGISTRY SSS FUL L12  
 L15 169 SEA FILE=REGISTRY ABB=ON PLU=ON L14/COM  
 L16 109 SEA FILE=REGISTRY ABB=ON PLU=ON L15 NOT (X OR N)/ELS  
 L17 141 SEA FILE=REGISTRY ABB=ON PLU=ON "PERBORIC ACID"  
 L22 457 SEA FILE=HCAPLUS ABB=ON PLU=ON L16  
 L23 3051 SEA FILE=HCAPLUS ABB=ON PLU=ON L17  
 L57 26957 SEA FILE=HCAPLUS ABB=ON PLU=ON ?BENZENESULFONATE  
 L58 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L57 AND L22  
 L59 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L58 AND (L23 OR PERBOR?) 3 cites

=&gt; s 125-26 or 131 or 144 or 146-47 or 156 or 159

L87 16 (L25 OR L26) OR L31 OR L44 OR (L46 OR L47) OR L56 OR L59 16 cites from HCAPLUS

=&gt; dup rem 186 187 removing duplicate cites

FILE 'USPATFULL' ENTERED AT 15:33:48 ON 26 AUG 2003  
 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'HCAPLUS' ENTERED AT 15:33:48 ON 26 AUG 2003

LEVY 10/071,051

=> d his

(FILE 'HOME' ENTERED AT 14:18:56 ON 26 AUG 2003)

FILE 'HCAPLUS' ENTERED AT 14:19:04 ON 26 AUG 2003

L1 220 S SHROOT B7/AU  
L2 34 S SEAL L7/AU  
L3 1896 S HUNT J7/AU  
L4 121 S STERLING J7/AU  
L5 72 S BOLSEN K7/AU  
L6 2 S SITKA P7/AU  
L7 2340 S L1-6  
L8 1 S L7 AND PERBORATE  
SELECT RN L8 1

FILE 'REGISTRY' ENTERED AT 14:21:33 ON 26 AUG 2003

L9 4 S E1-4

FILE 'HCAPLUS' ENTERED AT 14:21:52 ON 26 AUG 2003

L10 1 S L8 AND L9 *1 cite of 4 compounds displayed*

=> d ibib abs hitstr ind

L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:633520 HCAPLUS  
TITLE: Disinfectant/sterilizant for medical devices and  
topical applications  
INVENTOR(S): Shroot, Braham; Seal, Lawton;  
Hunt, James; Sterling, Jonathan;  
Bolsen, Kathy; Sitka, Penny  
PATENT ASSIGNEE(S): Healthpoint, Ltd., USA  
SOURCE: PCT Int. Appl., 19 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066107	A1	20030814	WO 2002-US40569	20021218
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

US 2003157192 A1 20030821 US 2002-71051 20020208

PRIORITY APPLN. INFO.: US 2002-71051 A 20020208

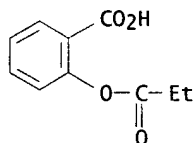
AB Disclosed is a powder compn. which reacts in water to form in situ peroxydicarboxylic acids at an anti-microbially effective concn. Importantly, its utility is both for topical anti-microbial application and for effective low temp. disinfection/sterilization of instruments. It comprises the combination of a perborate, one or more novel acyl and/or aroyl donors, a buffering system which allows the pH to arise to about 9 for rapid formation of the peroxydicarboxylic acids and then drop to about 7.5 for sustained stability and microbial kill. It preferably includes a surfactant facilitating antimicrobial efficacy, as well as other minors. For example, a powdery disinfectant contained Na perborate monohydrate 5, butyrylsalicylic acid 5.4, Na phosphate monobasic 1.2, and Na dodecylbenzenesulfonate 0.00625 g.

IT 6328-44-5 7632-04-4, Sodium perb rate  
25155-30-0, Sodium dodecylbenzenesulfonate 71974-02-2

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(disinfection with in situ formed peroxycarboxylates)

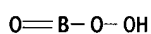
RN 6328-44-5 HCAPLUS

CN Benzoic acid, 2-(1-oxopropoxy)- (9CI) (CA INDEX NAME)



RN 7632-04-4 HCAPLUS

CN Perboric acid (HBO(02)), sodium salt (9CI) (CA INDEX NAME)



● Na

RN 25155-30-0 HCAPLUS

CN Benzenesulfonic acid, dodecyl-, sodium salt (8CI, 9CI) (CA INDEX NAME)



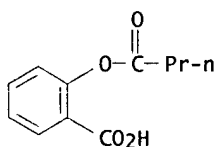
D1- SO3H

Me- (CH2)11- D1

● Na

RN 71974-02-2 HCAPLUS

CN Benzoic acid, 2-(1-oxobutoxy)- (9CI) (CA INDEX NAME)



IC ICM A61L002-00

ICS A61L002-16; A61L002-23; A01N037-16; A01N055-08; C11D003-39;  
A01N059-14

CC 63-8 (Pharmaceuticals)

ST disinfectant powder **perborate** butyrylsalicylate  
peroxycarboxylate

IT Disinfectants

Sterilization and Disinfection

(disinfection with in situ formed peroxycarboxylates)

- IT Medical equipment  
(instruments; disinfection with in situ formed peroxycarboxylates)
- IT Carboxylic acids  
RL: BUU (Biological use, unclassified); FMU (Formation, unclassified); PAC  
(Pharmacological activity); BIOL (Biological study); FORM (Formation,  
nonpreparative); USES (Uses)  
(peroxy; disinfection with in situ formed peroxycarboxylates)
- IT Drug delivery systems  
(topical, powders; disinfection with in situ formed peroxycarboxylates)
- IT 6328-44-5 7632-04-4, Sodium perborate  
25155-30-0, Sodium dodecylbenzenesulfonate 71974-02-2  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(disinfection with in situ formed peroxycarboxylates)

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PROCESSING COMPLETED FOR L86

PROCESSING COMPLETED FOR L87

L88 25 DUP REM L86 L87 (0 DUPLICATES REMOVED) *25 cites total*  
ANSWERS '1-9' FROM FILE USPATFULL  
ANSWERS '10-25' FROM FILE HCAPLUS

=> d ibib abs hitstr kwic l88 1-9

L88 ANSWER 1 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2003:201326 USPATFULL

TITLE: Methods and agents for cleaning and disinfecting  
fragile medical appliances

INVENTOR(S): Biering, Holger, Grevenbroich, GERMANY, FEDERAL  
REPUBLIC OF  
Glasmacher, Rudolf, Monheim, GERMANY, FEDERAL REPUBLIC  
OF  
Schwidden, Hubert, Gelsenkirchen, GERMANY, FEDERAL  
REPUBLIC OF  
Sorns, Jorg, Dusseldorf, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003139311	A1	20030724
APPLICATION INFO.:	US 2002-168738	A1	20021002 (10)
	WO 2000-EP12693		20001214

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1999-19962344	19991223
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MERCHANT & GOULD PC, P.O. BOX 2903, MINNEAPOLIS, MN, 55402-0903	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
LINE COUNT:	799	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of agents, which contain at least one disinfection system based on selected organic peracids and combinations of peracids, in automatically functioning systems, in which fragile medical appliances, in particular, endoscopes, are cleaned and disinfected. According to the invention, the appliances are brought into contact with an aqueous disinfection agent solution after they have been treated and/or at the same time they are being treated with an aqueous cleaning solution. The invention also relates to cleaning and disinfection agents and methods which are all suited for carrying out this purpose.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . the aqueous preparations required for disinfection are produced just prior to use, from relatively stable preliminary stages, namely from sodium perborate and acid anhydrides. According to German Offenlegungsschrift 27 01 133, the aqueous preparations are obtained from hydrogen peroxide eliminators and aromatic acyloxycarboxylic acids. However, only a few of these compounds yield disinfecting solutions with sufficiently broad activity, and these acylation agents mixed. . . commercially available product known as Sekusept powder which, when dissolved in water, produces a disinfecting preparation by reaction of sodium perborate with tetraacetyl ethylenediamine (TAED). This product which is based on an N-acyl compound has a broad range of activity and. . .

SUMM . . . detergents and cleaning compositions, for example C.sub.8-C.sub.18 alkylsulfates, C.sub.8-C.sub.18 alkylethersulfates, C.sub.8-C.sub.18 alkanesulfonates, C.sub.8-C.sub.18-quadrature. olefin



sulfonates, sulfonated C.sub.8-C.sub.18 fatty acids, C.sub.8-C.sub.18 alkylbenzenesulfonates, sulfosuccinic acid mono- and di-C.sub.1-C.sub.12 alkyl esters, C.sub.8-C.sub.18 alkylpolyglycol ethercarboxylates, C.sub.8-C.sub.18 N-acyltaurides, C.sub.8-C.sub.18 N-sarcosinates, C.sub.8-C.sub.18 alkylisothionates and mixtures thereof.

SUMM . . . mentioned again owing to the specific function. Particularly preferred hydrotropes include sulfonates/sulfonic acids, in particular cumene, xylene, octyl, naphthyl and alkylbenzenesulfonates /sulfonic acids, the alkyl group containing between 6 and 16 carbon atoms in the last case.

L88 ANSWER 2 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2002:112858 USPATFULL

TITLE: Manganese complexes as catalysts for peroxygenated compounds to clean hard surfaces, especially dishes

INVENTOR(S): Hazenkamp, Menno, Basel, SWITZERLAND  
Dubs, Marie-Josée, Wittersdorf, FRANCE  
Bachmann, Frank, Freiburg, GERMANY, FEDERAL REPUBLIC OF  
Schlingloff, Gunther, Riehen, SWITZERLAND  
Allemann, Rachel, Saint-Louis, FRANCE  
Dannacher, Josef, Basel, SWITZERLAND

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002058599	A1	20020516
APPLICATION INFO.:	US 2001-943657	A1	20010831 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-763017, filed on 15 Feb 2001, GRANTED, Pat. No. US 6306808 A 371 of International Ser. No. WO 1999-EP5699, filed on 6 Aug 1999, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1998-810811	19980819
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005	

NUMBER OF CLAIMS: 15

EXEMPLARY CLAIM: 1

LINE COUNT: 665

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB As activators for peroxy compounds in dishwashing agents there are used manganese complexes of formula (1) or (2) ##STR1##

wherein

Y is linear or branched alkylene of formula --[C(R.sub.1).sub.2].sub.m, wherein m is an integer from 2 to 8 and each R.sub.1 independently of the other(s) is hydrogen or C.sub.1-C.sub.4alkyl; --CX.dbd.CX--, wherein X is cyano, linear or branched C.sub.1-C.sub.8alkyl or di(linear or branched C.sub.1-C.sub.8alkyl)amino; --(CH.sub.2).sub.q--NR.sub.1--(CH.sub.2).sub.q--, wherein R.sub.1 is as defined and q is 1, 2, 3 or 4; or a 1,2-cyclohexylene or 1,2-phenylene radical of formula ##STR2##

wherein R.sub.8 is hydrogen, CH.sub.2OH, CH.sub.2NH.sub.2 or SO.sub.3M, wherein M is hydrogen, an alkali metal atom, ammonium or the cation of an organic amine,

R.sub.5 and R.sub.6 are each independently of the other hydrogen; linear or branched C.sub.1-C.sub.4alkyl; linear or branched C.sub.1-C.sub.8-alkylene-R.sub.2, wherein R.sub.2 is OR.sub.1, COOR.sub.1 or NR.sub.3R.sub.4; unsubstituted aryl or aryl substituted by cyano, halogen, OR.sub.1, COOR.sub.1, nitro, linear or branched C.sub.1-C.sub.8-alkyl, NR.sub.3R.sub.4, wherein R.sub.3 and R.sub.4 are

each independently of the other hydrogen or linear or branched C.sub.1-C.sub.12alkyl, or by --N.sym.R.sub.1R.sub.3R.sub.4, wherein R.sub.1, R.sub.3 and R.sub.4 are as defined, each R.sub.7 independently of the others is hydrogen or C.sub.1-C.sub.4alkyl,

Z.sub.1 and Z.sub.2 are each independently of the other hydrogen, hydroxy, C.sub.1-C.sub.4alkoxy or di(C.sub.1-C.sub.4-alkyl)amino, and

A is a charge-balancing anionic ligand.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . especially hydrogen peroxide and solid peroxy compounds that dissolve in water with the release of hydrogen peroxide, such as sodium perborate and sodium carbonate perhydrate, have long been used as oxidising agents for disinfection and bleaching purposes. The oxidising action of such substances in dilute solutions is highly dependent upon temperature. For example, using H.sub.2O.sub.2 or perborate in alkaline bleaching liquors it is only at temperatures above about 80.degree. C. that sufficiently rapid bleaching of soiled textiles. . . alkylenediamines, especially tetraacetylenediamine, acylated glycolurils, especially tetraacetylglycoluril, N-acylated hydantoins, hydrazides, triazoles, hydrotriazines, urazoles, diketopiperazines, sulfurylamides and cyanurates, and in addition carboxylic acid anhydrides, especially phthalic anhydride, carboxylic acid esters, especially sodium nonanoyloxybenzenesulfonate\* \*\* , sodium \*\*\*isononoyloxybenzenesulfonate, and acylated sugar derivatives, such as pentaacetylglucose. By the addition of such substances, the bleaching action of aqueous peroxide liquors. . .

SUMM [0032] The cleaning agents according to the invention, which can be in the form of powder- or tablet-form solids, or homogeneous solutions or suspensions, may in principle comprise, in addition to the bleach catalyst used according. . .

SUMM . . . cleaning agent for hard surfaces according to the invention can also comprise abrasive constituents, especially from the group comprising quartz powders, wood flours, ground plastics, chalks and glass microbeads, and mixtures thereof. Abrasive substances are present in the cleaning agents according. . .

SUMM . . . citrate and especially trisodium citrate dihydrate. Trisodium citrate dihydrate can be used in the form of a fine- or coarse-crystalline powder. Depending upon the pH value ultimately established in the agents according to the invention, the acids corresponding to the mentioned. . .

SUMM [0049] The agents according to the invention are preferably in the form of powder-form, granular or tablet-form preparations which can be produced in a manner known per se, for example by mixing, granulating, roller-compacting. . .

SUMM [0051] The preparation of the agents according to the invention in the form of non-dusty, storage-stable pourable powders and/or granules having high bulk densities in the range of from 800 to 1000 g/l can be carried out by. . .

DETD [0063] 10.1 mg (30 .mu.mol) of morin dihydrate are dissolved in 1000 ml of a borax buffer solution (9 mmol of disodium tetraborate/liter, pH=9.4). At t=0 min., 295 mg (2.5 mmol) of sodium perborate monohydrate and, as. . .

L88 ANSWER 3 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2002:168193 USPATFULL

TITLE: Activators for peroxide compounds in detergents and cleaning agents

INVENTOR(S): Grothus, Marita, Friedberg, GERMANY, FEDERAL REPUBLIC OF  
Weiss, Albrecht, Langenfeld, GERMANY, FEDERAL REPUBLIC OF  
Kottwitz, Beatrix, Duesseldorf, GERMANY, FEDERAL REPUBLIC OF  
Pegelow, Ulrich, Duesseldorf, GERMANY, FEDERAL REPUBLIC

OF  
Uphues, Guenter, Monheim, GERMANY, FEDERAL REPUBLIC OF  
Prueser, Inken, Duesseldorf, GERMANY, FEDERAL REPUBLIC  
OF

PATENT ASSIGNEE(S): Henkel Kommanditgesellschaft auf Aktien, Duesseldorf,  
GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6417151	B1	20020709
	WO 9845398		19981015
APPLICATION INFO.:	US 1999-402404		19991004 (9)
	WO 1998-EP1804		19980326
			19991004 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1997-19713852	19970404
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Gupta, Yogendra N.	
ASSISTANT EXAMINER:	Petruncio, John M	
LEGAL REPRESENTATIVE:	Jaeschke, Wayne C., Murphy, Glenn E.J.	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	820	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A detergent or disinfectant composition comprising is presented having 0.5 to 10 percent by weight of an activator compound which under perhydrolysis conditions forms a percarboxylic acid, and releases a leaving group capable of being used as a substrate for enzymes, and up to 50 percent by weight of a peroxygen compound. The composition increases the oxidation of peroxide compounds in oxidation, bleaching, detergent, cleaning and disinfecting solutions, especially at low temperatures.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . hydrogen peroxide, and solid peroxygen compounds which dissolve in water and release hydrogen peroxide in the process, such as sodium perborate and sodium carbonate perhydrate, having long been used as oxidizing agents for disinfecting and bleaching purposes. In dilute solutions, the oxidizing effect of these substances depends to a large extent on the temperature. For example, with H.sub.2O.sub.2 or perborate in alkaline bleaching liquors, sufficiently rapid bleaching of soiled textiles is only achieved at temperatures above about 80.degree. C. At . . . tetraacetyl glycoluril, N-acylated hydantoins, hydrazides, triazoles, hydrotriazines, urazoles, diketopiperazines, sulfonyl amides and cyanurates, also carboxylic anhydrides, more especially phthalic anhydride, carboxylic acid esters, more especially sodium nonanoyloxybenzenesulfonate, sodium isononoyloxybenzenesulfonate, and acylated sugar derivatives, such as pentaacetyl glucose. By adding these substances, the bleaching effect of aqueous peroxide liquors can. . .

SUMM . . . the form of mixtures. If solid peroxygen compounds are to be used, they may be used in the form of powders or granules which may even be coated in known manner. The peroxygen compounds may be added to the washing or. . .

SUMM . . . bleaching agent, the laundry detergents, dishwashing detergents and disinfectants according to the invention, which may be present in particular as powder-form solids, in the form of post-compacted particles, a homogeneous solutions or suspensions, may in principle contain any known ingredients typically. . .

SUMM . . . preferred embodiment of the compositions according to the invention. If alkali metal aluminosilicate, particularly zeolite, is present as an additional buffer builder, the ratio by weight

of aluminosilicate to silicate, expressed as water-free active substances, is preferably from 1:10 to 10:1. . . .

DETD . . . to the formula  $R-CO-OCH_2CH_2-$   
 $N-(CH_2)_3-$  (R as defined in Table 1) in the concentration shown in Table 1 and a pH buffer system in such a quantity that the solutions had the available oxygen concentration of  $H_2O_2$  (ppm AO) shown in Table. . . .

DETD . . . an anionic surfactant but no bleach or bleach activator was used in concentrations of practical relevance instead of the pH buffer system. The peracid concentrations shown in Table 2 were obtained.

DETD . . . an anionic surfactant but no bleach or bleach activator was used in concentrations of practical relevance instead of the pH buffer system. The peracid concentrations shown in Table 4 were obtained.

DETD . . . an anionic surfactant but no bleach or bleach activator was used in concentrations of practical relevance instead of the pH buffer system. The peracid concentration shown in Table 6 was obtained.

L88 ANSWER 4 OF 25 USPATFULL on STN

ACCESSION NUMBER: 2001:185243 USPATFULL

TITLE: Manganese complexes as catalysts for peroxygenated compounds to clean hard surfaces, especially dishes

INVENTOR(S): Hazenkamp, Menno, Basel, Switzerland  
 Dubs, Marie-Josée, Wittersdorf, France  
 Bachmann, Frank, Freiburg, Germany, Federal Republic of  
 Schlingloff, Gunther, Riehen, Switzerland  
 Allemann, Rachel, Saint-Louis, France  
 Dannacher, Josef, Basel, Switzerland

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Corporation, Tarrytown, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6306808	B1	20011023
	WO 2000011129		20000203
APPLICATION INFO.:	US 2001-763017		20010215 (9)
	WO 1999-EP5699		19990806
			20010215 PCT 371 date
			20010215 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1998-810811	19980819
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Delcotto, Gregory	
LEGAL REPRESENTATIVE:	Mansfield, Kevin T.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	611	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the use of certain manganese complexes as catalysts for reactions with peroxy compounds for bleaching colored stains on hard surfaces. The invention also relates to cleaning agents for hard surfaces comprising such manganese catalysts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . especially hydrogen peroxide and solid peroxy compounds that dissolve in water with the release of hydrogen peroxide, such as sodium perborate and sodium carbonate perhydrate, have long been used as oxidising agents for disinfection and bleaching purposes. The oxidising action of such substances in dilute solutions is highly dependent upon temperature. For example, using  $H_2O_2$  or perborate in alkaline bleaching liquors it is only at temperatures above about 80.degree. C. that sufficiently rapid bleaching

of soiled textiles. . . . alkylenediamines, especially tetraacetylenediamine, acylated glycolurils, especially tetraacetyl glycoluril, N-acylated hydantoins, hydrazides, triazoles, hydrotriazines, urazotes, diketopiperazines, sulfurylamides and cyanurates, and in addition carb xylic acid

anhydrides, especially phthalic anhydride, carboxylic acid esters, especially sodium nonanoyloxybenzenesulfonate\*

\*\* , sodium \*\*\*isononoyloxybenzenesulfonate, and acylated sugar derivatives, such as pentaacetylglucose. By the addition of such substances, the bleaching action of aqueous peroxide liquors. . . .

SUMM The cleaning agents according to the invention, which can be in the form of powder- or tablet-form solids, or homogeneous solutions or suspensions, may in principle comprise, in addition to the bleach catalyst used according. . . .

SUMM . . . . cleaning agent for hard surfaces according to the invention can also comprise abrasive constituents, especially from the group comprising quartz powders, wood flours, ground plastics, chalks and glass microbeads, and mixtures thereof. Abrasive substances are present in the cleaning agents according. . . .

SUMM . . . . citrate and especially trisodium citrate dihydrate. Trisodium citrate dihydrate can be used in the form of a fine- or coarse-crystalline powder. Depending upon the pH value ultimately established in the agents according to the invention, the acids corresponding to the mentioned. . . .

SUMM The agents according to the invention are preferably in the form of powder-form, granular or tablet-form preparations which can be produced in a manner known per se, for example by mixing, granulating, roller-compacting. . . .

SUMM The preparation of the agents according to the invention in the form of non-dusty, storage-stable pourable powders and/or granules having high bulk densities in the range of from 800 to 1000 g/l can be carried out by,. . . .

DETD 10.1 mg (30 .mu.mol) of morin dihydrate are dissolved in 1000 ml of a borax buffer solution (9 mmol of disodium tetraborate/liter, pH=9.4). At t=0 min., 295 mg (2.5 mmol) of sodium perborate monohydrate and, as. . . .

L88 ANSWER 5 OF 25 USPATFULL on STN

ACCESSION NUMBER: 1998:51564 USPATFULL

TITLE: Laundry detergent containing a polyhydroxy fatty amide and insoluble ethoxylated alcohol

INVENTOR(S): Bailliey, Gerard Marcel, Newcastle upon Tyne, England  
Powell, Suzanne, Newcastle upon Tyne, England

PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5750485		19980512
APPLICATION INFO.:	US 1995-468236		19950606 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-162162, filed on 29 Apr 1994, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1991-13139	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Lieberman, Paul	
ASSISTANT EXAMINER:	Hardee, John R.	
LEGAL REPRESENTATIVE:	Patel, Ken K., Rasser, Jacobus C., Yetter, Jerry J.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1807	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Detergent compositions were prepared which contain 1-10% of a fatty acid amide, in which the carbon is attached to a C.sub.15 -C.sub.17

hydrocarbon, and wherein one of the nitrogen substituents is a polyhydroxyhydrocarbyl having a linear hydrocarbon chain with at least three hydroxyl groups pendent therefrom. Said compositions further comprise ~~1-6% by weight of an insoluble ethoxylated C.sub.12-C.sub.15~~ primary alcohol containing an average of three ethoxylate groups per mole.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- SUMM G.B. Patent 745,036, published Feb. 15, 1956, assigned to Atlas Powder Company, relates to heterocyclic amides and carboxylic esters thereof that are said to be useful as chemical intermediates, emulsifiers, wetting. . . an anhydriized hexane pentol or a carboxylic acid ester thereof, R.sub.1 is a monovalent hydrocarbon radical, and --C(O)R.sub.2 is the acyl radical of a carboxylic acid having from 2 to 25 carbon atoms.
- SUMM Preferably the composition is granular and comprises from 3% to 15% by weight of anionic surfactant, from 1% to 10% of component (a) and from. . .
- SUMM . . . example, sodium, potassium, ammonium, and substituted ammonium salts such as mono, di- and triethanolamine salts) of soap, C.sub.9 -C.sub.20 linear alkylbenzenesulfonates, C.sub.8 l-C.sub.22 primary or secondary alkanesulfonates, C.sub.8 -C.sub.24 olefinsulfonates, sulfonated polycarboxylic acids prepared by sulfonation of the pyrolyzed product of. . .
- SUMM . . . 1%, more typically from about 5% to about 50%, preferably about 5% to about 30%, by weight of detergent builder. Granular formulations typically comprise at least about 1%, more typically from about 10% to about 80%, preferably from about 15% to. . .
- SUMM Other silicates may also be useful such as for example magnesium silicate, which can serve as a crispening agent in granular formulations, as a stabilizing agent for oxygen bleaches, and as a component of suds control systems.
- SUMM . . . builders are especially useful in the present invention. Aluminosilicate builders are of great importance in most currently marketed heavy duty granular detergent compositions, and can also be a significant builder ingredient in liquid detergent formulations. Aluminosilicate builders include those having the. . .
- SUMM . . . are the alkali metal tripolyphosphates, sodium, potassium and ammonium pyrophosphate, sodium and potassium and ammonium pyrophosphate, sodium and potassium orthophosphate, sodium polymeta phosphate in which the degree of polymerization ranges from about 6 to about 21, and salts of phytic acid.
- SUMM . . . thereof, in a polycarboxylate builder of particular importance for heavy duty liquid detergent formulations, but can also be used in granular compositions. Suitable salts include the metal salts such as sodium, lithium, and potassium salts, as well as ammonium and substituted. . .
- SUMM Peroxidase enzymes are used in combination with oxygen sources, e.g., percarbonates, perborate, persulfate, hydrogen peroxide, etc. They are used for "solution bleaching," i.e. to prevent transfer of dyes or pigments removed from. . .
- SUMM A wide range of enzyme materials and means for their incorporation into synthetic detergent granules is also disclosed in U.S. Pat. No. 3,553,139, issued Jan. 5, 1971 to McCarty et al. (incorporated herein by reference).. . .
- SUMM For granular detergents, the enzymes are preferably coated or prilled with additives inert toward the enzymes to minimize dust formation and improve. . .
- SUMM . . . 1% to about 10%, of such laundry detergent composition. In general, bleaching compounds are optional components in non-liquid formulations, e.g., granular detergents. If present, the amount of bleach activators will typically be from about 0.1% to about 50%, more typically from. . .
- SUMM Suitable perhydrate bleaches may be any of the inorganic salts such as perborate, percarbonate, perphosphate and persilicate salts but is conventionally an alkali metal normally sodium, perborate or percarbonate. Sodium perb rate can be in the form of the

monohydrate of nominal formula  $\text{NaBO}_2 \cdot \text{H}_2\text{O}$  or the tetrahydrate  $\text{NaBO}_2 \cdot \text{H}_2\text{O} \cdot 3\text{H}_2\text{O}$ .

SUMM Granular detergent compositions which contain such compounds typically contain from about 0.01% to about 10.0% by weight of the clay removal.

SUMM . . . to 24 carbon atoms, propylene oxide, and monostearyl phosphates such as monostearyl alcohol phosphate ester and monostearyl di-alkali metal (e.g., sodium, potassium, lithium) phosphates and phosphate esters. The hydrocarbons, such as paraffin and haloparaffin, can be utilized in liquid form. The liquid hydrocarbons will. . . .

SUMM . . . and silanated silica are described, for instance, in German Patent Application DOS 2,124,526. Silicone defoamers and suds controlling agents in **granular** detergent compositions are disclosed in U.S. Pat. No. 3,933,672, Bartolotta et al., and in U.S. Pat. No. 4,652,392, Baginski et. . .

SUMM . . . more preferably between about 7.5 and about 9.0. Techniques for controlling pH at recommended usage levels include the use of buffers, alkali, acids, etc., and are well known to those skilled in the art.

SUMM . . . under a nitrogen sweep to form a melt (approximately 25 minutes). When the melt temperature reaches 145.degree. C. catalyst (anhydrous powdered sodium carbonate, 10.5 g., 0.01 mole, J. T. Baker) is added. The nitrogen sweep is shut off and the aspirator. .

SUMM . . . the  
range from 1 to 10 micrometers

Citrate  
MA/AA  
Tri-sodium citrate dihydrate  
Copolymer of 1:4 maleic  
anhydride/acrylic acid, average  
molecular weight about 80,000.

<b>Perborate</b>	Anhydrous sodium perborate
<b>Monohydrate</b>	bleach empirical formula

Enzyme: Mixed proteolytic and amylolytic enzyme sold by Novo Industries AS.

**Brightener:** Enzyme sold by Novis Industries AS:  
Sodium 4,4'-bis(2-morpholino-4-anilino-s-triazin-6-ylamino)stilbene-2:2'-disulphonate.

DETPMP Diethylene. . .

DETD . . . 5.4

C.sub.12/15 AE.sub.3 S

	1.5		
TGA	3.5	6.5	--

25E3	3.0	--	6.5
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Zeolite A	15.0
-----------	------

Citrate	6.5
Silicate (2.0 ratio)	

3.5

Carbonate	13.6
-----------	------

MA/AA	4.25
-------	------

DETPMP	0.38
--------	------

CMC	0.48
-----	------

TAED	5.0
------	-----

Perborate	16.0
-----------	------

Enzyme	1.4
--------	-----

Brightener	0.19
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**Suds Suppressor**

3.0

CLM      What is claimed is:

.. according to claim 1, wherein the anionic surfactant is free of alkyl benzene sulfonate salts and the detergent is in **granular** form.

L88 ANSWER 6 OF 25 USPATFULL on STN

ACCESSION NUMBER: 97:120588 USPATFULL

TITLE: Polyhydroxy fatty acid amide surfactants in  
 INVENTOR(S): percarbonate bleach-containing compositions  
 Hardy, Frederick Edward, Ponteland Newcastle-On-Tyne,  
 United Kingdom  
 PATENT ASSIGNEE(S): Murch, Bruce Prentiss, Cincinnati, OH, United States  
 The Procter & Gamble Company, Cincinnati, OH, United  
 States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5700771		19971223
APPLICATION INFO.:	US 1995-400632		19950307 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-79685, filed on 17 Jun 1993, now abandoned which is a continuation of Ser. No. US 1991-756098, filed on 6 Sep 1991, now abandoned which is a continuation-in-part of Ser. No. US 1990-589738, filed on 28 Sep 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Lieberman, Paul		
ASSISTANT EXAMINER:	Dusheck, Caroline L.		
LEGAL REPRESENTATIVE:	Yetter, Jerry J., Rasser, Jacobus C.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2555		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB Disclosed is a detergent composition comprising a polyhydroxy fatty acid amide surfactant of the formula: ##STR1## wherein R.sup.1 is H, C.sub.1 -C.sub.4 hydrocarbyl, 2-hydroxy ethyl, 2 hydroxy propyl, or a mixture thereof, R.sup.2 is C.sub.5 -C.sub.31 hydrocarbyl, and Z is a polyhydroxy-hydrocarbyl having a linear hydrocarbyl chain with at least 3 hydroxyls connected directly to said chain, or an alkoxylated derivative thereof, and a non-borate, non-borate-forming bleaching agent such as the persulfates and especially the percarbonate bleaches. Mixtures of non-perborates with bleach activators such as tetraacetyl ethylene diamine are also used in the compositions. Also disclosed is a method for cleaning substrates, such as fabrics, fibers, textiles, hard surfaces, etc., at temperatures below about 50.degree. C., especially below about 40.degree. C., with a detergent composition containing polyhydroxy fatty acid amide surfactant, auxiliary deterative surfactants, optional deterative adjunct ingredients, and bleaching agent, wherein the bleaching agent is a non-borate, non-borate-forming bleaching agent, especially percarbonate bleach.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . alkoxylated derivative thereof, and a non-borate, non-borate-forming bleaching agent such as the persulfates and especially the percarbonate bleaches. Mixtures of non-perborates with bleach activators such as tetraacetyl ethylene diamine are also used in the compositions. Also disclosed is a method for . . .

SUMM G.B. Patent 745,036, published Feb. 15, 1956, assigned to Atlas Powder Company, relates to heterocyclic amides and carboxylic esters thereof that are said to be useful as chemical intermediates, emulsifiers, wetting. . . an anhydriized hexane pentol or a carboxylic acid ester thereof, R.sub.1 is a monovalent hydrocarbon radical, and --C(O)R.sub.2 is the acyl radical of a carboxylic acid having from 2 to 25 carbon atoms.

SUMM . . . about 1% to about 10%, of the detergent composition. In general, bleaching compounds are optional components in non-liquid formulations, e.g., granular detergents. If present, the amount of bleach activators will typically be from about 0.1% to about 60%, more typically from. . .

SUMM . . . known or become known. These include oxygen bleaches as well as others known in the art. Borate-containing bleaching agents, e.g., perborate bleaches, and other bleaching agents which can form borate in situ under detergent storage or wash conditions ("borate-forming" bleaching agents). . .



SUMM . . . 1%, more typically from about 5% to about 50%, preferably about 5% to about 30%, by weight of detergent builder. **Granular** formulations typically comprise at least about 1%, more typically from about 10% to about 80%, preferably from about 15% to . . .

SUMM . . . other silicates may also be useful such as for example magnesium silicate, which can serve as a crispening agent in **granular** formulations, as a stabilizing agent for oxygen bleaches, and as a component of suds control systems.

SUMM . . . builders are especially useful in the present invention. Aluminosilicate builders are of great importance in most currently marketed heavy duty **granular** detergent compositions, and can also be a significant builder ingredient in liquid detergent formulations. Aluminosilicate builders include those having the . . .

SUMM . . . are the alkali metal tripolyphosphates, sodium, potassium and ammonium pyrophosphate, sodium and potassium and ammonium pyrophosphate, sodium and potassium orthophosphate, sodium polymeta phosphate in which the degree of polymerization ranges from about 6 to about 21, and salts of phytic acid.

SUMM . . . thereof, is a polycarboxylate builder of particular importance for heavy duty liquid detergent formulations, but can also be used in **granular** compositions. Suitable salts include the metal salts such as sodium, lithium, and potassium salts, as well as ammonium and substituted. . . .

SUMM Peroxidase enzymes are used in combination with oxygen sources, e.g., percarbonate, **perborate**, persulfate, hydrogen peroxide, etc. They are used for "solution bleaching," i.e. to prevent transfer of dyes or pigments removed from. . . .

SUMM A wide range of enzyme materials and means for their incorporation into synthetic detergent **granules** is also disclosed in U.S. Pat. No. 3,553,139, issued Jan. 5, 1971 to McCarty et al. (incorporated herein by reference).. . .

SUMM For **granular** detergents, the enzymes are preferably coated or prilled with additives inert toward the enzymes to minimize dust formation and improve. . . .

SUMM The compositions of the present invention can also optionally contain water-soluble ethoxylated amines having clay soil removal and anti-redeposition properties. **Granular** detergent compositions which contain these compounds typically contain from about 0.01% to about 10.0% by weight of the water-soluble ethoxylated. . . .

SUMM . . . 24 carbon atoms, propylene oxide, and monostearyl phosphates such as monostearyl alcohol phosphate ester and monostearyl di-alkali metal (e.g., K, Na, Li) **phosphates** and phosphate esters. The hydrocarbons such as paraffin and haloparaffin can be utilized in liquid form. The liquid hydrocarbons will. . . .

SUMM . . . and silanated silica are described, for instance, in German Patent Application DOS 2,124,526. Silicone defoamers and suds controlling agents in **granular** detergent compositions are disclosed in U.S. Pat. No. 3,933,672, Bartolotta et al., and in U.S. Pat. No. 4,652,392, Baginski et. . . .

SUMM . . . more preferably between about 7.5 and about 9.0. Techniques for controlling pH at recommended usage levels include the use of **buffers**, alkalis, acids, etc., and are well known to those skilled in the art.

SUMM . . . under a nitrogen sweep to form a melt (approximately 25 minutes). When the melt temperature reaches 145.degree. C., catalyst (anhydrous **powdered** sodium carbonate, 10.5 g., 0.1 mole, J. T. Baker) is added. The nitrogen sweep is shut off and the aspirator. . . .

DETD These examples show heavy duty **granular** detergent compositions containing polyhydroxy fatty acid amide and preferred bleach systems.

DETD

1 2 3

**Base Granule**

C.sub.14-15 Alkyl sulfate

14.2 8.5 10.4

C.sub.14-15 Alkyl Ethoxy (2.25) Sulfate

4.3 5.2

N-Methyl N-1-Deoxyglucityl Cocamide	2.8	4.2	5.2
Zeolite A	21.0	21.7	28.0
Sodium. . . . .	1.1	1.1	1.1
Tallow Fatty Acid	1.1	1.1	1.1
Brightener	0.2	0.2	0.2
Admix and Spray-on			
Citric Acid		6.0	
Sodium Carbonate	11.0		16.1
Sodium Percarbonate	5.0		5.0
Nonanoyloxybenzenesulfonate			
	5.3		
Nonyl amido succinnic peracid			
	2.7		
Protease (1.4% active enzyme)			
	0.9	0.9	0.9
Perfume	0.3	0.3	0.3
C.sub.12-13 Alkyl Ethoxylate (6.5 mole)			
	1.1	1.1	

DETD . . . . ppm, wash water weight basis, for temperatures below about 50 C. The above examples are made by combining the base granule ingredients as a slurry, and spray drying to about 4-8% residual moisture. The remaining dry ingredients are admixed in granular or powder form with the spray dried granule in a rotary mixing drum, and the liquid ingredients (nonionic surfactant and perfume) sprayed on.

DETD

4 5

**Base Granule**

Linear C.sub.12 Alkylbenzene Sulfonate			
	7.6		
C.sub.14-15 Alkyl Sulfate			
	10.6	10.1	
C.sub.14-15 Alkyl Ethoxy (2.25) Sulfate			
		4.0	
Zeolite	20.4	23.4	
Miscellaneous (dispersants,			
	9.8	16.6	
brighteners, filler salts, etc)			
Water	5.4	5.4	
Admix and Spray-on			
Zeolite A	5.0		
C.sub.14-15 Alkyl Sulfate			
	3.2	4.6	
N-Methyl N-1-Deoxyglucityl Cocamide			
Sodium Percarbonate	3.7		
Nonanoyloxybenzenesulfonate			
	5.0		
Nonyl amido succinnic peracid	2.7		
Citric Acid		6.0	
Sodium Carbonate	18.3	6.0	
C.sub.12-13 Alkyl Ethoxylate (6-5 mole)			
	2.0	1.0	
Miscellaneous (filler salts,			
	9.0	20.2	

enzymes, . . . .

DETD Examples 4 and 5 exemplify condensed granular detergent compositions, preferably utilized at about 1200 ppm, wash water basis, and intended for temperatures below about 50.degree. C. These are prepared by slurring and spray drying the base granule ingredients, admixing the powdered or granular dry admixes, and spraying on the liquid admix ingredients.

DETD

6 7

**Base Granule**

C.sub.12-18 Alkyl Sulfate	4.1	4.1
C.sub.16-18 Fatty Acid	2.2	2.2
TMS/TDS (80:20)*	7.0	7.0
Polyacrylate (4500 MW)	3.3	3.3
Polyethylene Glycol (8000 MW)	1.3	1.3
Sodium. . . = 2)	11.0	11.0
Sodium Diethylenetriamine Pentaacetate	0.7	0.7
Brightener	0.5	0.5
Admix and Spray-on		
Zeolite	5.0	5.0
Suds Suppressor flake**	0.3	0.3
Sodium Percarbonate	12.0	12.0
Nonanoyloxybenzenesulfonate	5.0	5.0
N-Methyl N-1-Deoxyglucityl Cocamide	5.1	6.4
C.sub.16-18 Methyl Ester Sulfate		15.0
C.sub.12-18 Alkyl Sulfate	12.2	
C.sub.12-18 Alkyl Ethoxy (2) Sulfate	4.1	

C.sub.12-13 Alkyl Ethoxylate. . . .  
 DETD The compositions of Examples 6 and 7 represent condensed granular formulations prepared by slurring and spray drying the base granule ingredients to a moisture of about 5%, and mixing in the additional dry ingredients. The resulting mixture is dedusted by.

DETD	8	9	10
<b>Base Granule</b>			
Linear C.sub.12 Alkylbenzene Sulfonate	5.9	5.9	
N-Methyl N-1 Deoxyglucityl Lauramide	5.9		
C.sub.14-15 Alkyl Sulfate		5.9	
C.sub.16-18 Alkyl Sulfate	2.5	2.5	2.5
Zeolite	20.5	14.0	20.5
Polyacrylate. . . Miscellaneous (filler salts,	20.5	17.3	14.4
brighteners, etc)			
Admix and Spray-on			
N-Methyl N-1-Deoxyglucityl Lauramide	5.6		
N-Methyl N-1-Deoxyglucityl Tallow	5.6		
Fatty Amide			
Sodium Silicate	2.9	2.9	2.9
Sodium Perborate.H2O	12.5		
Sodium Percarbonate		12.5	16.0
Tetraacetylenediamine	2.5	2.0	2.5
Miscellaneous (filler salts,	10.1	11.2	12.6
enzymes, etc)			
	100.0	100.0	100.0

DETD Examples 8-10 show standard density heavy duty granular detergent compositions for wash temperatures preferably between about 50.degree.-95.degree. C., at concentrations of about 8000 ppm, wash water weight basis. The compositions are prepared by spray drying a slurry of the base granule ingredients to about 10-13%

moisture, adding additional dry powdered ingredients, such as bleach, activators, and other adjuncts, and spraying on liquids such as perfume, nonionics, or suds suppressor fluids.

DETD	11	12	13
<b>Base Granule</b>			
C.sub.16-18 Alkyl Sulfate	2.4	2.4	2.4
C.sub.14-16 Alkyl Sulfate	4.6		
C.sub.16-18 Alkyl Ethoxylate (11 mole)	1.1	1.1	1.1
Zeolite	21.3	23.6	21.3
Diethylenetriamine Pentamethylene-	0.2	7.0	
N-Methyl N-1-Deoxyglucityl Tallow			5.7
Fatty Amide			
C.sub.12-18 Alkyl Sulfate			5.9
C.sub.16-18 Methyl Ester Sulfonate		4.6	
Sodium Carbonate	17.5	17.3	17.5
Sodium Silicate	3.5	3.0	3.5
Sodium Perborate.H2O	12.5	16.0	
Sodium Percarbonate			12.5
Tetraacetylene diamine	5.0		5.0
Miscellaneous	9.8	9.3	9.8
	100.0	100.0	100.0

- DETD . . . at temperature of preferably from about 50.degree. C. to 95.degree. C. These compositions can be made by slurring the base granule ingredients and spray dried to about 9% moisture content. Remaining dry ingredients are added and mixed in a rotary mix.
- DETD . . . from the reaction product prior to use in the finished detergent formulation. Likewise, the formulator of, for example, solid, typically granular, detergent compositions may find it convenient to run the process at 30.degree. C.-90.degree. C. in solvents which comprise ethoxylated alcohols, . . .
- DETD . . . is filtered out. The product, after removal of water and MMA by evaporation, is about 95% N-methyl glucamine, a white powder.
- DETD . . . for about 30 minutes and the product, after removal of water and evaporation, is about 95% N-methyl glucamine, a white powder
- DETD . . . Ether is removed on a rotary evaporator and the product is stored in an oven overnight, and ground to a powder. Any remaining N-methyl maltamine is removed from the product using silica gel. A silica gel slurry in 100% methanol is. . .
- DETD . . . example, the reaction product of dimethyl terephthalate, ethylene glycol, 5-sodiosulfoisophthalate and 3-sodiosulfobenzoic acid. Such agents are preferred for use in granular laundry detergents.
- DETD A granular laundry detergent composition suitable for use at the relatively high concentrations common to front-loading automatic washing machines, especially in Europe, . . .
- DETD The procedure for preparing the granules comprises various tower-drying, agglomerating, dry-additions, etc., as follows. The percentages are based on the finished composition.
- CLM What is claimed is:
- . . . is a member selected from the group consisting of zeolites, layered silicates and mixtures thereof; said composition being free of perborate bleach.

The invention can also include additional stiffeners, such as calcium or magnesium silicate, or silica.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- DETD . . . . now abandoned, itself a continuation of Ser. No. 07/167,544, filed Mar. 4, 1988 and now abandoned, entitled "METHOD FOR SYNTHESIZING ACYLOXYCARBOXYLIC ACIDS," which discloses methods of acylating the hydroxycarboxylic acids which can be predecessors to the activators of this invention. Said. . . .
- DETD . . . . Ser. No. 07/674,400, now U.S. Pat. No. 5,153,341 filed concurrently herewith, of Dumas et al, entitled Improved Process for Preparing **Benzenesulfonate** salts, and especially, in the previously described application of Ottoboni et al., the latter application being wholly incorporated by reference. . . .
- DETD The hydrogen peroxide source may be selected from the alkali metal salts of percarbonate, **perborate**, persilicate and hydrogen peroxide adducts.
- DETD Most preferred are sodium percarbonate, and sodium **perborate** mono- and tetrahydrate. Other peroxygen sources may be possible, such as alkaline earth and alkali metal peroxides, monopersulfates and monoperphosphates.

## DETD TABLE V

## Detergent Formulation

COMPONENT	Wt %
Na Tripolyphosphate	33.21
HLAS	11.29
Na <b>Perborate</b> Monohydrate	7.46
Na.sub.2 CO.sub.3	40.40
Silicate	4.98
Moisture	2.66
	100.00

## DETD TABLE VI

## Detergent + Activator Formulation

Component	Wt. %
Na Tripolyphosphate	27.16
HLAS	9.23
Na <b>Perborate</b> Monohydrate	6.10
Na.sub.2 CO.sub.3	33.04
Silicate	4.07
Activator Granules	8.94
Na.sub.2 SO.sub.4	6.74
Alcosperse.sup.1	0.32
Ultramarine Blue.sup.2	0.15
FWA.sup.3	0.32
Dequest 2006.sup.4	0.50
Savinase.sup.5	0.91
Fragrance	0.20
Moisture	2.32
	100.00

.sup.1. . . .

## DETD

## Component Wt. in Grams

Na <b>Perb rate</b> Monohydrate	0.175 g (28 ppm A.O.)
Na.sub.2 CO.sub.3	1.200 g
Activator	gram amount equivalent to 14

(via granule or ppm A.O. theoretical powder)

## DET D TABLE XIV

Nonphosphate Detergent + Activator Formulation	
Component	Wt. %

Na.sub.2 CO.sub.3	61.13
HLAS	11.34
Na Perborate Monohydrate	7.49
Silicate	6.48
Activator Noodle	9.97
Minors, including Na.sub.2 SO.sub.4, UMB, Enzyme, Moisture, etc.	3.59
	100.00

DETD In another test, the effect on performance is reviewed when sodium **perborate** tetrahydrate is used as the oxidant, the surfactant chain length is varied, and the builder system is non-phosphate. The formulation in TABLE XIV, above, was used, with conditions of: **perborate** tetrahydrate crystals with particle size of U.S. mesh grade 30; 21.degree. C., 100 ppm water hardness; and nonphosphate builder system. . . .

## DET D                      TABLE XVI

% A.O. of peroxide yield at 12 minutes  
 Surfactant **Perborate** .times. 4H.sub.2 O.sup.1  
**Perborate** .times. 1H.sub.2 O.sup.2

Biosoft S130	31%	95%
Biosoft S100	91%	95%
Neodol 25-9	95%	95%

.sup.1 Sodium perborate tetrahydrate.

.sup.2 Sodium perborate monohydrate.

DET D The above results demonstrate that in a non-phosphate system, the chain length of the surfactant can influence solubility of the perborate tetrahydrate, when the surfactant is anionic. Further, the effect is not influenced by pH in the 9.8-11.0 range, water hardness.

DET Because of this effect, it is preferred to use **perborate** monohydrate in a non-phosphate system which, as shown in TABLE XVI, is soluble.

DET D In yet another test below, the solubility difference between the phosphate detergent formulation containing sodium **perborate** monohydrate in TABLE VI and an identical formulation containing sodium **perborate** tetrahydrate were compared. The amount of particulate residue collected on a black swatch after filtering the wash solution therethrough indicates. . .

DETD . . . (grams)

A. sup.1	0.011
B. sup.2	0.293

.sup.1 Detergent formula described in TABLE VI, above.

<sup>2</sup>.sup.2 Detergent formula listed in TABLE VI, with sodium perborate tetrahydrate substituted for sodium perborate monohydrate.

DET D . . . TABLE XVII demonstrate that when the surfactant used is C.sub.12-14 HLAS, in a non-phosphate system, it is preferred to use **perborate monohydrate** as the peroxide source in order to reduce residual undissolved particles.

## DETD TABLE XXIII

Ingredient	Wt. %
Sodium carbonate.sup.1	60.0-70.0
Sodium polyacrylate.sup.1,.sup.2	2.0-6.0
Sodium silicate.sup.1,.sup.3	2.0-6.0
Sodium Perborate monohydrate	6.4
NOGPS Granules (40% active)	17.0
Aminopolyphosphonate.sup.4	0.6
Enzyme.sup.5	1.5
FWA.sup.6	0.38
Pigment.sup.7	0.18
Fragrance	0.24
Totals:	varies

.sup.1 levels of first three ingredients may vary. . .

CLM What is claimed is:

- . . . activator granules of claim 15 wherein said source of hydrogen peroxide is selected from the group consisting of alkali metal perborates, alkali metal percarbonates, hydrogen peroxide adducts and mixtures thereof.
- . . . activator granules of claim 24 wherein said source of hydrogen peroxide is selected from the group consisting of alkali metal perborates, alkali metal percarbonates, hydrogen peroxide adducts and mixtures thereof.

L88 ANSWER 9 OF 25 USPATFULL on STN

ACCESSION NUMBER: 92:106592 USPATFULL

TITLE: Process for preparing brightener-containing liquid detergent compositions with polyhydroxy fatty acid amines

INVENTOR(S): Honsa, Sandra L., Middletown, OH, United States

PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5174927		19921229
APPLICATION INFO.:	US 1991-755909		19910906 (7)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1991-742562, filed on 7 Aug 1991, now abandoned which is a continuation of Ser. No. US 1990-589759, filed on 28 Sep 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Albrecht, Dennis		
LEGAL REPRESENTATIVE:	Yetter, Jerry J., Lewis, Leonard W.		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2700		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides highly-built, liquid detergent compositions comprising: one or more conventional anionic, nonionic or cationic deterative surfactants; one or more optical brighteners; one or more polyhydroxy fatty acid amides of the general formula ##STR1## wherein R.sup.1 is H, a C.sub.1 -C.sub.4 hydrocarbyl, 2-hydroxy ethyl, 2-hydroxy propyl, or mixtures thereof, R.sup.2 is a C.sub.5 -C.sub.31 hydrocarbyl group, and Z is a polyhydroxyhydrocarbyl having a linear

hydrocarbyl chain with at least 3 hydroxyl groups directly connected to the chain, or an alkoxylated derivative thereof; one or more detergent builders; and a liquid carrier; wherein the optical brightener is added to the detergent composition in admixture with the polyhydroxy fatty acid amide.

The present invention also provides a premix for use in the formulation of liquid detergent compositions, said premix comprising one or more optical brighteners, one or more polyhydroxy fatty acid amides and a liquid carrier.

The present invention further provides a method for preparing optical brightener-containing liquid detergent compositions wherein said brightener is added to said detergent compositions via the above-described premix.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . formulated in a number of ways. One formulation method involves adding the brightener to the detergent composition as a free powder. However, this preparation method causes problems such as dusting, which can be particularly troublesome at a detergent composition manufacturing site. Another problem with this formulation method is that optical brighteners can require long dispersing times when added as powders to liquid detergent compositions.

SUMM G.B. Patent 745,036, published Feb. 15, 1956, assigned to Atlas Powder Company, relates to heterocyclic amides and carboxylic esters thereof that are said to be useful as chemical intermediates, emulsifiers, wetting. . . an anhydriized hexane pentol or a carboxylic acid ester thereof, R.sub.1 is a monovalent hydrocarbon radical, and --C(O)R.sub.2 is the acyl radical of a carboxylic acid having from 2 to 25 carbon atoms.

DETD . . . example, sodium, potassium, ammonium, and substituted ammonium salts such as mono-, di- and triethanolamine salts) of soap, C.sub.9 -C.sub.20 linear alkylbenzenesulfonates, C.sub.8 -C.sub.22 primary or secondary alkanesulfonates, C.sub.8 -C.sub.24 olefinsulfonates, sulfonated polycarboxylic acids prepared by sulfonation of the pyrolyzed product of. . .

DETD . . . other silicates may also be useful such as for example magnesium silicate, which can serve as a crispening agent in granular formulations, as a stabilizing agent for oxygen bleaches, and as a component of suds control systems.

DETD . . . builders are especially useful in the present invention. Aluminosilicate builders are of great importance in most currently marketed heavy duty granular detergent compositions, and can also be a significant builder ingredient in liquid detergent formulations. Aluminosilicate builders include those having the. . .

DETD . . . are the alkali metal tripolyphosphates, sodium, potassium and ammonium pyrophosphate, sodium and potassium and ammonium pyrophosphate, sodium and potassium orthophosphate, sodium polymeta phosphate in which the degree of polymerization ranges from about 6 to about 21. Particularly preferred are the alkali metal tripoly-. . .

DETD . . . e.g., citric acid, polycarboxylate builder of particular importance for heavy duty liquid detergent formulations, but can also be used in granular compositions.

DETD . . . about 1% to about 10%, of the detergent composition. In general, bleaching compounds are optional components in non-liquid formulations, e.g., granular detergents. If present, the amount of bleach activators will typically be from about 0.1% to about 60%, more typically from. . .

DETD Granular detergent compositions which contain such compounds typically contain from about 0.01% to about 10.0% by weight of the clay-removal agent,. . .

DETD . . . to 24 carbon atoms, propylene oxide, and monostearyl phosphates such as monostearyl alcohol phosphate ester and monostearyl di-alkali metal (e.g., sodium, potassium, lithium) phosphates and phosphate esters. The hydrocarbons, such as paraffin and



haloparaffin, can be utilized in liquid form. The liquid hydrocarbons will.

- DETD . . . and silanated silica are described, for instance, in German Patent Application DOS 2,124,526. Silicone defoamers and suds controlling agents in **granular** detergent compositions are disclosed in U.S. Pat. No. 3,933,672, Bartolotta et al., and in U.S. Pat. No. 4,652,392, Baginski et. . .
- DETD Peroxidase enzymes are used in combination with oxygen sources, e.g., percarbonate, **perborate**, persulfate, hydrogen peroxide, etc. They are used for "solution bleaching," i.e. to prevent transfer of dyes or pigments removed from. . .
- DETD A wide range of enzyme materials and means for their incorporation into synthetic detergent **granules** is also disclosed in U.S. Pat. No. 3,553,139, issued Jan. 5, 1971 to McCarty et al. (incorporated herein by reference).. . .
- DETD For **granular** detergents, the enzymes are preferably coated or prilled with additives inert toward the enzymes to minimize dust formation and improve. . .
- DETD . . . more preferably between about 7.5 and about 9.0. Techniques for controlling pH at recommended usage levels include the use of **buffers**, alkali, acids, etc., and are well known to those skilled in the art.
- DETD . . . to the initial binary composition to form the premix. The brightener is added to the initial binary composition as a **powder** and may be in the form of a salt or an acid. If added as an acid, a neutralizing agent. . .
- DETD The premix of the present invention may also contain optional ingredients which include, but are not necessarily limited to, **buffering** agents, solvents and hydrotropes of the type already described herein. The hydrotropes are especially preferred for lowering the gel temperature. . .
- DETD **Buffering** agents which may be included in such premix include, but are not necessarily limited to, glycine, N,N-bis(2-hydroxyethyl)glycine, tris(hydroxymethyl)aminoethane, triethanolamine, 2-amino-2-ethyl-1,3-propanediol, 2-amino-2-methyl-1,3-propanediol, N-methyl diethanolamine, 1,3-diamino-2-hydroxypropane, and mixtures thereof. When present in the premix of the present invention, such **buffering** agents typically comprise from about 1% to about 40%, preferably from about 3% to about 20%, more preferably from about. . .
- DETD . . . under a nitrogen sweep to form a melt (approximately 25 minutes). When the melt temperature reaches 145.degree. C., catalyst (anhydrous **powdered** sodium carbonate, 10.5 g., 0.1 mole, J. T. Baker) is added. The nitrogen sweep is shut off and the aspirator. . .
- DETD . . . from the reaction product prior to use in the finished detergent formulation. Likewise, the formulator of, for example, solid, typically **granular**, detergent compositions may find it convenient to run the process at 30.degree. C.-90.degree. C. in solvents which comprise ethoxylated alcohols,. . .
- DETD . . . is filtered out. The product, after removal of water and MMA by evaporation, is about 95% N-methyl glucamine, a white **powder**.
- DETD . . . for about 30 minutes and the product, after removal of water and evaporation, is about 95% N-methyl glucamine, a white **powder**
- DETD . . . Ether is removed on a rotary evaporator and the product is stored in an oven overnight, and ground to a **powder**. Any remaining N-methyl maltamine is removed from the product using silica gel. A silica gel slurry in 100% methanol is. . .
- DETD . . . example, the reaction product of dimethyl terephthalate, ethylene glycol, 5-sodiosulfoisophthalate and 3-sodiosulfo benzoic acid. Such agents are preferred for use in **granular** laundry detergents.
- DETD . . . to this invention. It will be appreciated that the stability of enzymes in such compositions is considerably less than in **granular** detergents. However, by using typical enzyme stabilizers such as formate and boric acid, lipase and cellulase enzymes can be protected. . .
- DETD . . . 30.degree. C., and substrate is an emulsion tributyrin and gum

arabic, in the presence of Ca.sup.++ and NaCl in phosphate buffer.

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L88 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:633520 HCAPLUS

TITLE: Disinfectant/sterilizant for medical devices and topical applications

INVENTOR(S): Shroot, Braham; Seal, Lawton; Hunt, James; Sterling, Jonathan; Bolsen, Kathy; Sitka, Penny

PATENT ASSIGNEE(S): Healthpoint, Ltd., USA

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066107	A1	20030814	WO 2002-US40569	20021218
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

US 2003157192 A1 20030821

US 2002-71051 20020208

PRIORITY APPLN. INFO.:

US 2002-71051 A 20020208

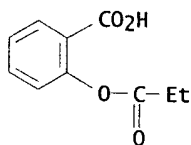
AB Disclosed is a powder compn. which reacts in water to form in situ peroxycarboxylic acids at an anti-microbially effective concn. Importantly, its utility is both for topical anti-microbial application and for effective low temp. disinfection/sterilization of instruments. It comprises the combination of a **perborate**, one or more novel acyl and/or aroyl donors, a buffering system which allows the pH to arise to about 9 for rapid formation of the peroxycarboxylic acids and then drop to about 7.5 for sustained stability and microbial kill. It preferably includes a surfactant facilitating antimicrobial efficacy, as well as other minors. For example, a powdery disinfectant contained Na **perborate** monohydrate 5, butyrylsalicylic acid 5.4, Na phosphate monobasic 1.2, and Na **dodecylbenzenesulfonate** 0.00625 g.

IT 6328-44-5 7632-04-4, Sodium **perborate**  
25155-30-0, Sodium **dodecylbenzenesulfonate**  
71974-02-2

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(disinfection with in situ formed peroxycarboxylates)

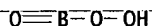
RN 6328-44-5 HCAPLUS

CN Benzoic acid, 2-(1-oxopropoxy)- (9CI) (CA INDEX NAME)



RN 7632-04-4 HCAPLUS

CN Perboric acid (HBO(02)), sodium salt (9CI) (CA INDEX NAME)



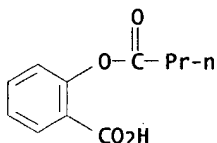
● Na

RN 25155-30-0 HCAPLUS  
 CN Benzenesulfonic acid, dodecyl-, sodium salt (8CI, 9CI) (CA INDEX NAME)

D1-SO<sub>3</sub>HMe-(CH<sub>2</sub>)<sub>11</sub>-D1

● Na

RN 71974-02-2 HCAPLUS  
 CN Benzoic acid, 2-(1-oxobutoxy)- (9CI) (CA INDEX NAME)



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L88 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:133123 HCAPLUS  
 DOCUMENT NUMBER: 138:175939  
 TITLE: Disinfecting and cleansing system for contact lenses  
 INVENTOR(S): Mowrey-McKee, Mary Flowers; Sills, Marzenna Alicja  
 PATENT ASSIGNEE(S): Novartis AG, Switz.; Novartis Pharma G.m.b.H.  
 SOURCE: PCT Int. Appl., 28 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003013621	A1	20030220	WO 2002-EP8839	20020807
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NO, NZ, OM, PH, PL, PT, RO, RU, SE, SG, SI, SK, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT,  
LU, MC, NL, PT, SE, SK, TR

US 2003118472 A1 20030626 US 2002-210808 20020731

PRIORITY APPLN. INFO.: US 2001-310893P P 20010808

OTHER SOURCE(S): MARPAT 138:175939

AB A system and a method for disinfecting and cleaning ophthalmic devices such as contact lenses is provided. The system involves the use of an active microbicidal soln. generated just prior to use by the reaction of an iodide salt with hydrogen peroxide in the presence of a peroxidase. Such a system is particularly useful for disinfecting contact lenses. Tablets were prepd. from horseradish peroxidase 300.0, subtilisin 8.0, lipase 2.0, sodium benzoate 7.4, KI 0.3, lactose monohydrate 63.0, citric acid 33.0, and K<sub>2</sub>CO<sub>3</sub> 47.0 mg/tablet.

IT 7632-04-4, Sodium perborate 10486-00-7, Sodium perborate tetrahydrate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(disinfecting and cleansing system for contact lenses)

RN 7632-04-4 HCAPLUS

CN Perboric acid (HBO(O<sub>2</sub>)), sodium salt (9CI) (CA INDEX NAME)

O=B-O-OH

O Na

RN 10486-00-7 HCAPLUS

CN Perboric acid (HBO(O<sub>2</sub>)), sodium salt, tetrahydrate (9CI) (CA INDEX NAME)

O=B-O-OH

O Na

O<sub>4</sub> H<sub>2</sub>O

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 188 12

L88 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:295276 HCAPLUS

DOCUMENT NUMBER: 138:312623

TITLE: Post clean treatment of metal or dielectric surfaces  
in the manufacture of wafers

INVENTOR(S): Small, Robert J.

PATENT ASSIGNEE(S): EKC Technology, Inc., USA

SOURCE: U.S., 20 pp., Cont.-in-part of U.S. 6,156,661.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6546939	B1	20030415	US 2000-704688	20001103
US 5279771	A	19940118	US 1990-610044	19901105

US 5334332	A	19940802	US 1992-911102	19920709
US 5981454	A	19991109	US 1997-801911	19970214
US 5911835	A	19990615	US 1997-826257	19970327
US 6156661	A	20001205	US 1999-384946	19990827

PRIORITY APPLN. INFO.:

US 1990-610044	A2	19901105
US 1992-911102	A2	19920709
US 1993-78657	B3	19930621
US 1995-443265	B1	19950517
US 1997-801911	A3	19970214
US 1997-826257	A2	19970327
US 1999-384946	A2	19990827

OTHER SOURCE(S): MARPAT 138:312623

AB A compn. for removal of chem. residues from metal or dielec. surfaces or for chem. mech. polishing of a copper or aluminum surface is an aq. soln. with a pH between about 3.5 and about 7. The compn. contains a monofunctional, difunctional or trifunctional org. acid and a buffering amt. of a quaternary amine, ammonium hydroxide, hydroxylamine, hydroxylamine salt, hydrazine or hydrazine salt base. A method in accordance with the invention for removal of chem. residues from a metal or dielec. surface comprises contacting the metal or dielec. surface with the above compn. for a time sufficient to remove the chem. residues. A method in accordance with the invention for chem. mech. polishing of a copper or aluminum surface comprises applying the above compn. to the copper or aluminum surface, and polishing the surface in the presence of the compn.

IT 11138-47-9, Sodium perborate

RL: MOA (Modifier or additive use); USES (Uses)  
(oxidizers; amine compd.-buffered org. acids for post clean treatment of metal or dielec. surfaces in manuf. of wafers, etc.)

RN 11138-47-9 HCAPLUS

CN Perboric acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L88 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

IC ICM B08B003-04

ICS C11D007-26; C11D007-32

NCL 134001300; 134001200; 134003000; 134039000; 510175000; 510176000; 510178000; 510499000; 510504000; 510245000

CC 76-2 (Electric Phenomena)

ST chem mech polishing wafer metal surface org acid hydroxylamine

IT Buffers

Electric insulators

Semiconductor devices

(amine compd.-buffered org. acids for post clean treatment of metal or dielec. surfaces in manuf. of wafers, etc.)

IT Carboxylic acids, uses

Metals, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(amine compd.-buffered org. acids for post clean treatment of metal or dielec. surfaces in manuf. of wafers, etc.)

IT Crown ethers

Oximes

RL: MOA (Modifier or additive use); USES (Uses)

(chelating agent; amine compd.-buffered org. acids for post clean treatment of metal or dielec. surfaces in manuf. of wafers, etc.)

IT Polishing

(chem.-mech.; amine compd.-buffered org. acids for post clean treatment of metal or dielec. surfaces in manuf. of wafers, etc.)

IT Amines, uses

RL: MOA (Modifier or additive use); USES (Uses)

(neutralizing agent for org. acids; amine compd.-buffered org. acids

82790-38-3 82801-21-6 82801-25-0 82801-26-1 82801-27-2  
 83145-28-2 83285-27-2 83601-71-2 84030-30-8 84233-90-9  
 84233-92-1 84473-74-5 84631-78-7 84643-53-8 85264-33-1  
 86115-11-9 86479-06-3 86880-59-3D, N-coco acyl derivs. 87118-95-4  
 88308-77-4 88558-41-2 88995-31-7 89415-87-2 89960-92-9  
 90117-66-1 91326-34-0 91465-08-6 92368-90-6 92585-24-5  
 93345-88-1 93345-89-2 93345-90-5 93345-91-6 93345-92-7  
 93778-80-4 93839-34-0 93856-82-7 93856-83-8 94005-95-5  
 94248-21-2 94313-91-4 94361-06-5 94857-31-5 95737-68-1  
 96565-37-6 97331-89-0 97331-92-5 97331-93-6 101463-69-8  
 102851-06-9 103055-07-8 103298-77-7 103298-78-8 104063-25-4  
 104133-05-3 104653-34-1 105024-66-6 105726-67-8 107534-96-3  
 107879-22-1 108080-74-6 108166-32-1 108189-00-0 109780-03-2  
 109835-67-8 109835-68-9 109835-69-0 111099-92-4 111099-93-5  
 111337-53-2 114955-18-9 114955-19-0 114955-20-3 115044-19-4  
 116255-48-2 118712-89-3 119515-20-7 119515-38-7 120068-37-3  
 120217-93-8 120217-94-9 120983-64-4 121227-99-4 122538-65-2  
 122795-41-9 125116-23-6 125770-49-2 125770-50-5 125770-51-6  
 126646-06-8 126646-07-9 128275-31-0 136426-54-5 138261-41-3  
 138265-88-0, Boron zinc hydroxide oxide (B12Zn4(OH)14O15) 138416-95-2  
 138698-36-9 140194-01-0, 1,1,3-Propanetricarboxaldehyde 140194-02-1  
 144768-02-5 146919-78-0 149118-66-1 154194-73-7 154339-84-1,  
 Silver sodium zirconium phosphate (Ag0.19Na0.47Zr2(HPO4)0.34(P04)2.66)  
 154339-85-2 173291-51-5 173423-45-5, Silver sodium zirconium phosphate  
 (Ag0.44Na0.25Zr2(HPO4)0.3(P04)2.7) 187615-12-9 188739-94-8  
 191546-07-3 191546-08-4 199169-27-2 216770-11-5, Silver sodium  
 zirconium phosphate (Ag0.05Na0.3Zr2(HPO4)0.65(P04)2.35) 251089-42-6  
 344931-17-5D, 1-Propanaminium, 3-amino-N-[2-[(2-hydroxyethyl)amino]-2-  
 oxoethyl]-N,N-dimethyl-, chloride, N-C16-18 acyl derivs. 351224-25-4  
 351224-26-5  
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);  
 BIOL (Biological study); USES (Uses)  
 (bactericide combinations in detergents)  
 IT 9001-92-7, Protease  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (bactericide combinations in detergents)  
 IT 87-86-5, Pentachlorophenol  
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);  
 BIOL (Biological study); USES (Uses)  
 (esters with fatty acids; bactericide combinations in detergents)  
 IT 65-85-0, Benzoic acid, uses  
 RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);  
 BIOL (Biological study); USES (Uses)  
 (r; bactericide combinations in detergents)

L88 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:534872 HCAPLUS

DOCUMENT NUMBER: 129:163176

TITLE: Non-caustic cleaning composition comprising peroxygen compound and specific silicate, and manufacturing in free-flowing, particulate form

INVENTOR(S): Talley, Charles Bullick

PATENT ASSIGNEE(S): Charvid Limited Liability Co., USA

SOURCE: U.S., 9 pp., Cont.-in-part of U.S. 5,663,132.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5789361	A	19980804	US 1996-609565	19960301
US 5663132	A	19970902	US 1995-396971	19950301
CA 2213743	AA	19960906	CA 1996-2213743	19960301
US 5898024	A	19990427	US 1997-780726	19970109
US 6043207	A	20000328	US 1998-128060	19980803

US 6034048	A	20000307	US 1998-129060	19980804
AU 9921394	A1	19990527	AU 1999-21394	19990325
US 6194367	B1	20010227	US 1999-299376	19990427

## PRIORITY APPLN. INFO.:

US 1995-396971	A2	19950301
AU 1996-50251	A3	19960301
US 1996-609565	A2	19960301
US 1997-780726	A2	19970109
US 1997-787439	A2	19970122
US 1998-129060	A1	19980804

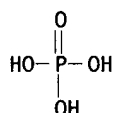
AB An alk. cleaning compn. is used for cleaning heavily soiled metal surfaces such as food fryers, baking pans, high temp. pasteurizers, and beer kettles, ceramic surfaces such as restaurant grade ceramic china plates and platters, and plastic surfaces. The cleaning compn. is noncaustic and includes 25-40% peroxygen compd., 2-8% chelate, and 15-35% metasilicate and/or sesquisilicate, optionally surfactant and hydrated builder.

IT 7558-79-4, Disodium phosphate 7558-80-7, Monosodium phosphate

RL: TEM (Technical or engineered material use); USES (Uses)  
(builder; non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)

RN 7558-79-4 HCAPLUS

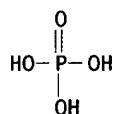
CN Phosphoric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



2 Na

RN 7558-80-7 HCAPLUS

CN Phosphoric acid, monosodium salt (8CI, 9CI) (CA INDEX NAME)



Na

IT 12674-33-8D, Perboric acid, salts

RL: TEM (Technical or engineered material use); USES (Uses)  
(non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)

RN 12674-33-8 HCAPLUS

CN Perboric acid (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM C11D011-00

ICS C11D007-14; C11D007-18; C11D017-00

NCL 510218000

CC 46-6 (Surface Active Agents and Detergents)

Section cross-reference(s): 17

ST noncaustic cleaner food prepn surface; percarbonate noncaustic cleaner; sesquisilicate noncaustic cleaner; metasilicate noncaustic cleaner; chelate noncaustic cleaner

IT Detergents

(granular and soln. form; non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)

- IT Chelating agents  
(non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)
- IT Carboxylic acids, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)
- IT Silicates, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(sesqui-; non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)
- IT Polyphosphoric acids  
RL: TEM (Technical or engineered material use); USES (Uses)  
(sodium salts, builder; non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)
- IT 144-55-8, Sodium bicarbonate, uses 497-19-8, Sodium carbonate, uses 533-96-0, Sodium sesquicarbonate 7558-79-4, Disodium phosphate 7558-80-7, Monosodium phosphate 7757-82-6, Sodium sulfate, uses 7758-29-4, Sodium tripolyphosphate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(builder; non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)
- IT 60-00-4, uses 563-69-9D, Percarbonic acid, salts 4896-78-0, N-Hydroxyethylenediaminetriacetic acid 12674-33-8D, Perboric acid, salts 15593-90-5, Metasilicate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(non-caustic cleaning compn. comprising peroxygen compd. and silicate in free-flowing particulate form for cleaning food prepn. surfaces)
- REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:256090 HCAPLUS  
DOCUMENT NUMBER: 129:5886  
TITLE: Household bleaching agents for laundry use  
INVENTOR(S): Yamaguchi, Yukiyo; Furukawa, Masakazu; Hanada, Miyuki; Aoyagi, Muneo; Yamada, Hiroyuki  
PATENT ASSIGNEE(S): Kao Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10110194	A2	19980428	JP 1996-267314	19961008
PRIORITY APPLN. INFO.:			JP 1996-267314	19961008
OTHER SOURCE(S):		MARPAT 129:5886		

- AB The agents exhibiting superior bleaching power to various fibers comprise (a) percarbonate and/or perborate salts which release H<sub>2</sub>O<sub>2</sub> in water 20-80, (b) bleaching activators RCO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Y (R = C<sub>8</sub>-15 alkyl; Y = carboxylic, sulfonic acids or salts) 0.1-15, (c) cryst. alkali metal silicate or its hydrate with ion exchange capacity (ICC) .gtoreq.100 mg CaCO<sub>3</sub>/g 0.1-5, and (d) NaCO<sub>3</sub> 1-70%. A compn. contained Na percarbonate 40, alkali metal silicate (ICC 305 mg CaCO<sub>3</sub>/g) 3, C<sub>11</sub>H<sub>23</sub>CO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p-SO<sub>3</sub>Na 7, succinic acid 0.2, Na alkylbenzenesulfonate 1, polyethylene glycol 1, Na alkylsulfate 0.8, Na polyacrylate 1, Sokalan CP5 1, protease 1, and Na<sub>2</sub>CO<sub>3</sub> the balance, exhibiting bleaching detergency 65%.
- IT 89740-12-5P 89740-13-6P 180479-24-7P



RL: TEM (Technical or engineered material use); USES (Uses)  
(household bleaching agents for laundry use)

L88-ANSWER 18-OF-25 HCAPLUS-COPYRIGHT 2003-ACS-on-STN

ACCESSION NUMBER: 1998:147028 HCAPLUS  
DOCUMENT NUMBER: 128:231869  
TITLE: Bleaching detergents with high bleaching power  
INVENTOR(S): Ogura, Nobuyuki; Ozaki, Kazuyoshi; Yamaguchi, Michiyoshi; Aoyagi, Muneo  
PATENT ASSIGNEE(S): Kao Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10060494	A2	19980303	JP 1996-218476	19960820
PRIORITY APPLN. INFO.:			JP 1996-218476	19960820

OTHER SOURCE(S): MARPAT 128:231869

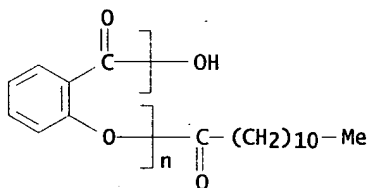
AB The detergents, having good bleaching power for hydrophilic and lipophilic stains, contain (a) inorg. peroxides, (b) surfactants, (c) bleach activators R1C02(C6H4C02)nM (I), and (d) bleach activators R2C02C6H4C02M [R1, R2 = C1-19 alkyl or alkenyl, (un)substituted aryl; M = H, cation; n = 2-10] with wt. ratios of c/d 1/1000-1000/1, and (c + d)/a 1/1-1/1000. Thus, a detergent contained Na percarbonate 10, Na alkylbenzenesulfonate 5, I (R1 = p-C7H15; M = H; 24.7% n = 1, 62.8% n = 2, 5.5% n = 3, 7.0% n > 3) 5, [(OH)2PO]2CMeOH 1 part, and balance amt. of Na2CO3.

IT 194099-33-7P 204701-90-6P 204701-91-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(bleach activators; bleaching detergents contg. bleach activators with high bleaching power)

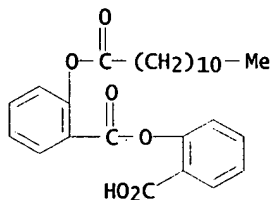
RN 194099-33-7 HCAPLUS

CN Poly(oxy-1,2-phenylenecarbonyl), .alpha.-(1-oxododecyl)-.omega.-hydroxy-(9CI) (CA INDEX NAME)



RN 204701-90-6 HCAPLUS

CN Benzoic acid, 2-[(1-oxododecyl)oxy]-, 2-carboxyphenyl ester (9CI) (CA INDEX NAME)

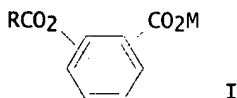


RN 204701-91-7 HCAPLUS

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08143896	A2	19960604	JP 1994-289844	19941124
PRIORITY APPLN INFO.: OTHER SOURCE(S):		MARPAT 125:171588	JP 1994-289844	19941124

GI



AB A laundry detergent compn. with improved ability of removing blood stain / comprises (1) 2-30 wt.% of potassium alkylbenzenesulfonate with C10-16 alkyl chain, (2) 0.5-30 wt.% of coated sodium percarbonate, (3) 0.1-10 wt.% org. peracid precursor I (R = C1-21 alkyl, alkenyl, alkyl-substituted aryl; M = H, org. or inorg. cation), optionally, (4) 2-30 wt.% of potassium .alpha.-olefin sulfonates, (5) cryst. alkali metal silicates, and (6) aluminosilicate.

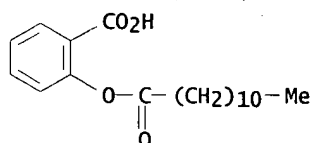
IT 169755-63-9 180479-25-8

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(granules, mixt. with polyethylene glycol; bleaching detergent compns. with improved blood stain-removal effect)

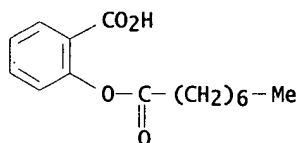
RN 169755-63-9 HCAPLUS

CN Benzoic acid, 2-[(1-oxododecyl)oxy]- (9CI) (CA INDEX NAME)



RN 180479-25-8 HCAPLUS

CN Benzoic acid, 2-[(1-oxooctyl)oxy]-, sodium salt (9CI) (CA INDEX NAME)



O Na

IC ICM C11D003-395

ICS C11D001-22; C11D003-20; D06L003-02

CC 46-6 (Surface Active Agents and Detergents)

ST alkylbenzenesulfonate potassium detergent bleaching; sodium percarbonate detergent bleaching; peracid org detergent bleaching; blood stain bleaching detergent

IT Bleaching agents

(org. peracid precursors and coated percarbonates; bleaching detergent compns. with improved blood stain-removal effect)

IT Sulfonates

- RL: TEM (Technical or engineered material use); USES (Uses)  
(1-alkene, C12-22, potassium salts; bleaching detergent compns. with improved blood stain-removal effect)
- IT Zeolites, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(4A, bleaching detergent compns. with improved blood stain-removal effect)
- IT Detergents  
(laundry, bleaching detergent compns. with improved blood stain-removal effect)
- IT 934-55-4D, Potassium benzenesulfonate, C12-14 alkyl-substituted  
1344-09-8, Sodium silicate 13870-28-5, Sks 6 25322-68-3D, Polyethylene glycol, alkyl ethers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(bleaching detergent compns. with improved blood stain-removal effect)
- IT 3313-92-6  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(coated by borate or silicate; bleaching detergent compns. with improved blood stain-removal effect)
- IT 25322-68-3, Polyethylene glycol  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(granules, mixt. with org. peracid precursors; bleaching detergent compns. with improved blood stain-removal effect)
- IT 133864-82-1 169755-63-9 180479-25-8  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(granules, mixt. with polyethylene glycol; bleaching detergent compns. with improved blood stain-removal effect)
- IT 7775-19-1, Sodium metaborate 10043-35-3, Boric acid, uses 12627-13-3, Silicate  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(percarbonate coated by; bleaching detergent compns. with improved blood stain-removal effect)

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ACCESSION NUMBER: 1996:529581 HCAPLUS

DOCUMENT NUMBER: 125:171558

TITLE: Storage-stable powdered bleaching laundry detergent compositions

INVENTOR(S): Yamaguchi, Yukyoshi; Hanada, Yoshuki; Tsucha, Shigemi; Ogura, Nobuyuki; Aoyanagi, Muneo

PATENT ASSIGNEE(S): Kao Corp, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08143895	A2	19960604	JP 1994-289846	19941124
PRIORITY APPLN. INFO.:			JP 1994-289846	19941124
OTHER SOURCE(S): MARPAT 125:171558				
AB The title compns. contain RCO <sub>2</sub> -o-C <sub>6</sub> H <sub>4</sub> X (R = C <sub>1</sub> -18 alkyl, alkenyl, alkanoyloxyethyl, Ph; X = anion salt), and Na percarbonate coated by borate ion-contg. coating agents, such as Na metaborate or Na orthoborate.				
IT 180479-24-7 180479-25-8 180479-26-9				
RL: TEM (Technical or engineered material use); USES (Uses) (storage-stable powd. bleaching laundry detergent compns.)				
RN 180479-24-7 HCAPLUS				
CN Benzoic acid, 2-[(1-oxododecyl)oxy]-, sodium salt (9CI) (CA INDEX NAME)				



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No.	Doccode	Number of pages
1	SRNT	43

Total number of pages: 43

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